## THE POSITION ON THE SHEET OF EARLY WATERMARKS

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N his recently published 'Introduction to Bibliography' Dr. McKerrow has pointed out the help towards the solution of problems connected with the format and make-up of books that may be supplied by the watermarks on the paper and the position which they occupy on

the page. But as he justly remarks this aid will fail us unless we know with some certainty the position occupied by the mark on the original sheet—that is how far we may trust to its being in the normal position in the centre of one half (the countermark, if there is one, being in the centre of the other) or with what frequency deviations from the rule may be expected. A numerical estimate of frequency, useful as it might be, would be extremely difficult, and is not here attempted; but the following notes, based on a study of watermarks extending over some years, may interest bibliographers, although they cannot claim to be at all complete, the position of the marks having been recorded only in strikingly abnormal cases. Much, however, may be learnt on the subject from Briquet's great work, and as the information is there widely scattered it may be permissible to draw somewhat freely from this vast storehouse of knowledge.

Deviations from the normal may be classed as regular or irregular, according as they are due to a well-recognized practice, or the result of accident or caprice. Even when the normal practice was followed no great care seems to have been taken to place the mark in the exact centre of the half-sheet, but such slight irregularities (which when seen in the folded page may be due merely to uneven folding or excessive trim-

ming) may be disregarded.

Marks in the centre of the whole sheet .- Of the regular deviations the first to be noted is that in which the mark is placed in the centre of the whole sheet. Briquet has shown (Les Filigranes, p. 324) that this position was characteristic of paper made in or near Geneva, being in fact laid down as obligatory in the enactment of 1562, the reason given being that in this way interference with the printed text is avoided. This seems to have merely given authority to a previously existing practice, though both before and after 1562 the rule cannot have been strictly adhered to, as we find the same mark in Geneva documents sometimes in the central, sometimes in the more normal position. Instances of the central position occur in many of the works of Calvin and other religious writers, the marks including the heart, the Greek cross on a shield, bear, hand, flower, &c. But the abnormality is not confined to Geneva paper, for instances are found in Italy (especially Bologna) in early days, e.g. the cutlas, Briquet, No. 5102; three circles, ibid., No. 3235; and the flower in various forms.

In later times it is found sporadically in different forms and various localities. Thus the letters D. A. Q. R. are placed centrally in the Introductio ad Rem Herbariam of Rivinus (Leipzig, 1690-1), giving here an interesting proof that the paper was made specially for the book, since they stand for its author, D. Augustus Quirinus Rivinus, the same initials appearing in print on the short title to vol. 2. In paper made probably at Genoa and largely exported to this country in the late seventeenth and early eighteenth centuries (partly perhaps because the French supply was cut off by the wars), the mark was sometimes placed centrally, e. g. there are various examples in the 1695 edition of Camden's Britannia, though the normal position is more often seen in the same type of paper. In later days, when the marks became larger, a central position may have been suggested by considerations of space. Thus in Varchi's Storia Fiorentina (Augsburg, 1721), a small folio book, the

mark—an 8-rayed star flanked by the letters AS—covers a large part of the sheet. A central mark is sometimes found in association with a main mark repeated in the two halves of the sheet, as in the case recorded in Briquet (No. 1320) from Artois in 1320. In much later times the Dutch maker, Adriaan Rogge, used (among other marks) that of the elephant repeated in the two half-sheets, with his monogram in the

centre.

Marks near the side margin.—A position near the side margin is shown by Briquet to have been specially characteristic of southern and south-western France, and besides the many examples given by him from before 1600, we find others from the first half (at least) of the seventeenth century. I have found examples from the sixteenth in various books printed at Lyon, e. g. in a folio Bible of 1523, in the Ptolemys of 1535 and 1541, and in a 16mo Strabo of 1557. As French paper was largely imported into England we find this position in Billingsley's translation of Euclid, published by John Day in 1570. A welldefined group of marks, often placed near the edge, takes the form of a pair of initials with trefoil or fleuron between and a small crown, or sometimes a fleur-de-lis, above. Others are the unicorn, toothed wheel, heart, serpent, bull's head, &c. But here, too, the practice seems to have been by no means consistent, for similar marks are also found placed normally. In the next century some French paper used in this country had the mark (very often the bunch of grapes) near the outer margin, sometimes with countermark in a similar position in the other halfsheet. Examples may be seen in Speed's Theatrum (Latin ed., 1616) and in Camden's Britannia of 1636. In the latter, the apparent position near the edge may be due to excessive cropping, and similar marks are found placed normally, e.g. in Dan's Merveilles . . . de Fontainebleau, Paris, 1642.

Although this position was specially characteristic of parts of France in early days, sporadic examples are found elsewhere, and Briquet gives examples so placed of the specially Italian mark of the crossed swords. But it is noteworthy that even in the case of marks commonly used in Italy, such as the Anchor or the Paschal Lamb, a position near the edge seems generally

associated with a French form of the mark.

Marks in the corner of the sheet.—A third, apparently less common, departure from the normal position is that in which the mark is placed in the corner of the sheet. This was the regular position for the countermark in Venice and possibly other parts of north Italy from comparatively early times, and seems to have been the place sometimes adopted for the only mark used, especially at Genoa. In the rare Orbis Breviarium of Zacharias Lilius (Venice, c. 1495) the only mark is a small flower in the corner, and Briquet quotes a similar mark and position for documents from the same region between 1499 and 1504. The countermarks of Venetian paper were most commonly letters with a trefoil between, and such marks are occasionally found as the sole mark, e.g. in Ramusio's Collection of Voyages, vol. 2, 1583, in Sanuto's Africa (1588), and elsewhere. More rarely the countermark consists of a small device, e. g. in the 1613 edition of Ramusio's vol. 1, we find one in the form of a small lantern, and as this also occurs in the same volume as a main mark, confusion might result if such paper were used in small formats. A small device without letters is also found as a corner-mark in the Alphonsine Tables, Venice, 1492, associated with both the crown and cardinal's hat as the mark proper. Pairs of letters with trefoil are sometimes found, fairly large, as the only mark in a normal position, e. g. in Cabaeus, Philosophia magnetica (Ferrara, 1629), Las Casas, Conquista dell' Indie Occidentali (Venice, 1645), and elsewhere, so that here too we have a possible pitfall for the unwary.

<sup>&</sup>lt;sup>1</sup> When letters otherwise used as a countermark appear in the corner with no other mark in the sheet it may sometimes be that the main mark has accidentally dropped out.

In the early eighteenth century corner-marks were commonly used in the papers above referred to as probably made at Genoa and largely exported to this country, the Genoese mills being still in the hey-day of prosperity. These papers form a fairly recognizable group, though as it is known that paper was made in the south of France after the 'facon de Gênes', it is unsafe to regard the group as entirely Genoese. A very common corner-mark is a combination of the letters CM (thus placed), but here too we find such devices as a small pair of scales, a leg or boot, a mark somewhat resembling a pair of eyeglasses, and a small flower with leaf. These occur commonly in association with a six-rayed star, a serpent with tail in mouth, or letters either singly or in pairs, these last often occurring as a normally-placed countermark on the half-sheet opposite to that with the star. Another characteristic of these papers is the frequent presence of subsidiary chain-lines, often very faint, about three-eighths of an inch from the more pronounced series.

Other abnormalities .- The above seem to be the most important abnormalities to be expected down to the early part of the eighteenth century, after which they become more irregular and difficult to classify, as the makers seem to have allowed themselves more latitude—except in France, where after 1741 they were bound by a definite ordinance. Of these less systematic deviations little need be said beyond pointing to their occurrence as introducing a possible element of uncertainty. I have seen a solitary instance (in paper made in France by G. Dalençon, probably about 1750) of a mark repeated four times, in the four quarters of the half-sheet. In another case both mark and countermark appear in the same half-sheet, one above, the other below. In a third (Paris, 1751), mark and countermark occupy the usual positions, but the date is added centrally at the top. Some irregularities are due to the elaborate nature of certain marks, for which room could not

be found in the half-sheet. In the *Menologium Graecorum* of Albani, printed at Urbino in 1727, we find the inscription 'Fabrica Generale in Urbino di Andrea Collin' running the whole length of the sheet and repeated three times in its height. In a book printed at Rome in 1739 the main mark (the head of St. Peter?) is placed in the centre of the right-half, a small countermark in that of the left, while the maker's name, P. P. Montagnani, runs vertically in large letters a little to the left of the centre. Such papers would hardly be used for small books, and as such aberrations seem to be of relatively recent dates, they are the less likely to cause trouble to

bibliographers.

The origin of countermarks.—Where mark and countermark are in their normal positions they are unlikely to give trouble, but as some uncertainty seems to prevail as to the period in which such countermarks began to appear, a few words on this subject may not be out of place. Apart from their casual and unsystematic use in some districts, e. g. in parts of Italy, in quite early times, and setting aside the Italian corner-marks already spoken of, they were regularly used in Lorraine and adjacent districts well before the end of the sixteenth century, in combination with a great variety of marks proper (eagle, crozier, dolphin, kranzlein, lion, &c., &c.), mostly in the form of cabalistic signs or letters surmounted by a mark like an arabic 4. But devices are also found, such as a small post- or hunting-horn. The more usual type of countermark, consisting of the maker's name or initials, was in use in France quite early in the seventeenth century (they are not unknown even before 1600), the earliest examples being most commonly associated with the bunch of grapes, as in Camden's Britannia, 1607, Speed's Theatrum, Latin edition, 1616, and his combined Atlas of 1627-31; as also in Le Clerc's Atlas, Paris, 1631. Another example, with the name R. Guesdon, is to be found in Milton's commonplace-book at the British Museum. At

the moment of writing I have lighted upon a mark (strangely enough in a book that has been in my possession for years) which is of special interest from this and several other points of view. It occurs in a few sheets of Hexham's Mercator of 1636, and consists of a crowned shield charged with the three fleurs-de-lis of France, and with a large L/XIII below. The countermark is unusually large for the period, and gives the following inscription, within a single-line border; PMR LEIE/A VITRE 1633. This anticipates by something like a century the later French practice (finally stabilized by the ordinance of 1741) of stating not only the maker's name, but his place of business and the date of making. It also throws a possible light on the source of much paper used in England in the seventeenth century, often marked with a fleur-de-lis of unusual type and the countermark M. LEIVNE or simply MLI, for it seems just possible that in the contracted form above we are also to understand Lejune. Further, the mark itself confirms the supposition that the L often seen in French marks of the time (without the numerals) does really stand for Louis. Lastly, as in one sheet the mark proper, in another the countermark, is near the edge, we have an instance either of irregular placing of the two on the sheet, or of a wasteful use of large paper, allowing for the sheet to be differently folded and cut down in the two cases.

For the greater part of the seventeenth century the practice of giving the maker's name or initials as a countermark in the centre of one half-sheet seems to have been specially characteristic of France, though it became quite general later.

As the name figures among the emigrants to Carolina of French extraction, it may be that this man was one of the Huguenots who established themselves as paper-makers in England. The identification of the above maker with Lejune is not to be pressed, as the supposed contraction-mark may be only a wire-line. In another copy of the atlas one of the same sheets (with an identical main mark) has the countermark POYLEVE A LYMOGE—which raises a curious problem.

Instead of mark and countermark, two quite different marks are not uncommonly found on the same sheet, so that when two different marks occur in the same gathering of a book it does not necessarily follow that the whole was not printed at once. Examples are the jug or pot + the fleur-de-lis (1598, &c.); a sphere (?) with trefoil and heart + a small cock (c. 1618); a fleur-de-lis+a small fish (1565, &c.); a moon-face+a fool's cap (1601, &c.), and so on; the second mark being almost equally important with the first. Sometimes both are quite elaborate, especially in later times. About 1695-6 one meets with the Medici arms on one half, and a combination of crown, letters, and grapes on the other (here a kind of glorified countermark, used otherwise as the sole mark). In an undated sheet possibly of about the same period, one finds a unicorn surrounded by scroll-work with crown above + a coat of arms surrounded by a wreath; and in a German book of 1739 a very elaborate coat of arms + a saint (?) with halo.

Irregular position of chain-lines.—A particularly difficult problem is the question whether the chain-wires were ever placed longitudinally in the mould, giving horizontal lines in a folio book, vertical in a quarto, and so on. Such an arrangement, unsatisfactory from the point of view of rigidity, must anyhow have been excessively rare, and I have found very few cases in which it seems fully demonstrated—one being the 1696 edition of Cluver's Introductio ad universam Geographiam, printed at Amsterdam. In certain sheets of this quarto book the chain-lines are vertical, and the watermark is in or near the normal position for quarto folding. It might be thought a case of half-sheets of large paper folded in four, but this is negatived by the fact that all the fore-edges (apart from some trimming) correspond to the original margins of the sheets as shown by the smaller intervals between the extreme pairs of chain-lines. Instances of horizontal chain-lines in folio books, as in the Leiden edition of Arrian, 1704, may be due to the use of large paper drastically cut down to the required size and shape. This might occasionally happen if the stock of suitable paper suddenly ran short, or if a bale of paper had been damaged at one end. But though it may be well to keep such an eventuality in mind, it would no doubt be quite exceptional.

Some of the puzzles connected with the format may possibly be due to the use of a paper of somewhat unusual shape. In Italy (and perhaps elsewhere) paper was certainly made of such proportions that, when folded once, it would give a page such as would naturally be put down as quarto. This would explain the vertical direction of the chain-lines in books that (apart from the position of the watermark) might otherwise be taken for quartos, and if similar paper were used for the smaller formats the facts might be less easy of detection. An example of a folio book of quarto shape is the Historia de Gentibus Septentrionalibus of Olaus Magnus (edition of Rome, 1555), in which the pages, as shaved in binding in the copy examined, measure  $26\frac{1}{2} \times 20$  cm. Paper with at least seven different marks was used for this book, all of which must have been made, it seems, in this less usual shape. We find, in fact, from Briquet that paper with three of these marks was made of sizes varying from 28.5 × 41 cm. to 30 × 43 cm., two of the other marks being not recorded by him.

The size of sheets.—A word may be given in conclusion to the question of size of sheets. Dr. McKerrow asks whether there is any evidence that paper was made in double the normal size in old days. It may therefore be recalled that Briquet, in his examination of the paper in the Archives of Genoa, found the sizes to vary in the twelfth and thirteenth centuries from  $27 \times 37$  cm. to  $35\frac{1}{2} \times 56$  cm. or roughly from single to double (Papiers et Filigranes des Archives de Gênes, 1888, p. 29). Even before 1600 he found paper as large as 42×62 cm. and mentions an edition of Balbi's Catholicon, attributed to Ulrich Zell, c. 1470, on paper of 48 × 66 cm. (Arab paper was made very much larger still). This shows that even in the West makers were capable of turning out paper twice as large as some of the standard sizes, though it does not prove that the same make of paper was supplied both in single and double size. It is natural to suppose that the larger sizes would be of stouter make. But it is worth noting that one of the papers used for the Olaus Magnus of 1555 is recorded by Briquet, with almost identical watermark, of the fully double size of

42.5 × 57 cm.

Such large variations in the sizes of old paper add materially to the difficulty of deciding the format of some small volumes. Many that would be put down at first sight as 12mo or even 16mo will prove on examination to be really 8vo. An example taken at random is the Viaggio dell' Indie Orientale of Gasparo Balbi (Venice, 1590). As cut down in binding the page of this in the copy examined measures only 13\frac{1}{2} \times 9\frac{1}{2} cm., the typepage including the head-line being only 12 cm. high. Yet this is certainly an 8vo, for not only is there a watermark in each gathering in or near the normal position for this format, but there is also in each a corner-mark at the foot of the other half-sheet, showing that no portion of the sheet was cut off before printing. The small size of the sheet is in fact matched in any number of the papers recorded by Briquet, and there is nothing more surprising, perhaps, in the use of such paper for 8vo folding than of rather larger paper for 12mo or 16mo. It would be impossible to print so many pages at once, but this might be entailed in any case by the use of a small press.

Paper of rather exceptional size was used for the Strasburg *Ptolemys* of 1513 and 1520. Trimmed in binding, it measures about  $46 \times 64$  cm. Briquet gives the maximum size down to the seventeenth century as  $50 \times 74$  cm., the size attributed to 'Imperial' in an inscription at Bologna dating, it is thought, from the end of the fourteenth century. The smallest size, 'Recute,' was less than half this.